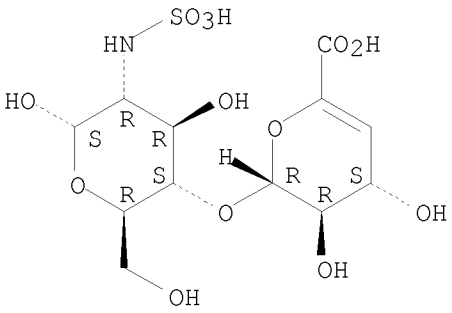
=> d l6 1- ibib abs hitstr
YOU HAVE REQUESTED DATA FROM 8 ANSWERS - CONTINUE? Y/(N):y

L6 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:947819 CAPLUS <<LOGINID::20080310>>
DOCUMENT NUMBER: 142:36754
TITLE: The X-Ray Structure of RANTES: Heparin-Derived Disaccharides Allows the Rational Design of Chemokine Inhibitors
AUTHOR(S): Shaw, Jeffrey P.; Johnson, Zoe; Borlat, Frederic; Zwahlen, Catherine; Kungl, Andreas; Roulin, Karen; Harrenga, Axel; Wells, Timothy N. C.; Proudfoot, Amanda E. I.
CORPORATE SOURCE: Serono Pharmaceutical Research Institute, Geneva, 1228, Switz.
SOURCE: Structure (Cambridge, MA, United States) (*2004*), 12(11), 2081-2093
CODEN: STRUE6; ISSN: 0969-2126
PUBLISHER: Cell Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The biol. activity of chemokines requires interactions with cell surface proteoglycans. We have determined the structure of the chemokine RANTES (regulated on activation normal T cell expressed) in the presence of heparin-derived disaccharide analogs by x-ray crystallog. These structures confirm the essential role of the BBXB motif in the interaction between the chemokine and the disaccharide. Unexpected interactions were observed in the 30s loop and at the amino terminus. Mutant RANTES mols. were designed to abrogate these interactions and their biol. activity examined in vivo. The K45E mutant within the BBXB motif lost the capacity to bind heparin and the ability to elicit cellular recruitment. The Y3A mutant maintained its capacity to bind heparin but was unable to elicit cellular recruitment. Finally, a tetrasaccharide is the smallest oligosaccharide which effectively abolishes the ability of RANTES to recruit cells in vivo. These crystallog. structures provide a description of the mol. interaction of a chemokine with glycosaminoglycans.
IT *145882-46-8D*, RANTES complex
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(crystal structure of RANTES:heparin-derived disaccharides)
RN 145882-46-8 CAPLUS
CN α-D-Glucopyranose, 2-deoxy-4-O-(4-deoxy-α-L-threo-hex-4-enopyranuronosyl)-2-(sulfoamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:270131 CAPLUS <<LOGINID::20080310>>
DOCUMENT NUMBER: 140:287660
TITLE: Preparation and HPLC of oligosaccharides obtained by heparinase-catalyzed depolymerization of low molecular weight of heparins
INVENTOR(S): Mourier, Pierre; Viskov, Christian
PATENT ASSIGNEE(S): Aventis Pharma S.A., Fr.
SOURCE: PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004027087	A2	20040401	WO 2003-FR2782	20030922 <--
WO 2004027087	A3	20050609		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
FR 2844808	A1	20040326	FR 2002-11724	20020923 <--
FR 2844808	B1	20050225		
CA 2499537	A1	20040401	CA 2003-2499537	20030922 <--
AU 2003279430	A1	20040408	AU 2003-279430	20030922 <--
BR 2003014654	A	20050802	BR 2003-14654	20030922 <--
EP 1558755	A2	20050803	EP 2003-772376	20030922 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006500019	T	20060105	JP 2004-537235	20030922
MX 2005PA01945	A	20050428	MX 2005-PA1945	20050218 <--
IN 2005CN00428	A	20070330	IN 2005-CN428	20050318
NO 2005001744	A	20050408	NO 2005-1744	20050408 <--

PRIORITY APPLN. INFO.:		
FR 2002-11724	A	20020923
US 2002-422482P	P	20021031
WO 2003-FR2782	W	20030922

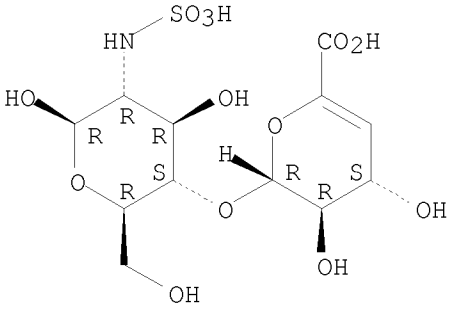
AB A method for heparinase-catalyzed depolymn. of low mol. weight of heparins and HPLC structure determination of the corresponding oligosaccharides and reduced oligosaccharides are reported.

IT *674789-50-5P* *674789-51-6P*
RL: BPN (Biosynthetic preparation); PRP (Properties); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(preparation and HPLC of oligosaccharides obtained by heparinase-catalyzed depolymn. of low mol. weight of heparins)

RN 674789-50-5 CAPLUS

CN β-D-Glucopyranose, 2-deoxy-4-O-(4-deoxy-α-L-threo-hex-4-enopyranuronosyl)-2-(sulfoamino)-, disodium salt (9CI) (CA INDEX NAME)

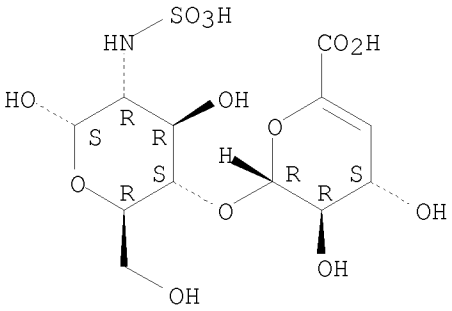
Absolute stereochemistry.



●2 Na

RN 674789-51-6 CAPLUS
CN α-D-Glucopyranose, 2-deoxy-4-O-(4-deoxy-α-L-threo-hex-4-enopyranuronosyl)-2-(sulfoamino)-, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 Na

L6 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:249315 CAPLUS <<LOGINID::20080310>>
DOCUMENT NUMBER: 140:287659
TITLE: Preparation and HPLC of oligosaccharides obtained by heparinase-catalyzed depolymerization of low molecular weight of heparins
INVENTOR(S): Mourier, Pierre; Viskov, Christian
PATENT ASSIGNEE(S): Aventis Pharma S. A., Fr.
SOURCE: Fr. Demande, 23 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French

FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2844808	A1	20040326	FR 2002-11724	20020923 <--
FR 2844808	B1	20050225		
US 2005119477	A1	20050602	US 2003-665872	20030918 <--
CA 2499537	A1	20040401	CA 2003-2499537	20030922 <--
WO 2004027087	A2	20040401	WO 2003-FR2782	20030922 <--
WO 2004027087	A3	20050609		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003279430	A1	20040408	AU 2003-279430	20030922 <--
BR 2003014654	A	20050802	BR 2003-14654	20030922 <--
EP 1558755	A2	20050803	EP 2003-772376	20030922 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1703519	A	20051130	CN 2003-822562	20030922 <--
JP 2006500019	T	20060105	JP 2004-537235	20030922
CN 1990495	A	20070704	CN 2007-10007033	20030922
US 2004265943	A1	20041230	US 2004-808791	20040325 <--
MX 2005PA01945	A	20050428	MX 2005-PA1945	20050218 <--
ZA 2005001741	A	20060628	ZA 2005-1741	20050228
IN 2005CN00428	A	20070330	IN 2005-CN428	20050318
NO 2005001744	A	20050408	NO 2005-1744	20050408 <--

PRIORITY APPLN. INFO.:			
	FR 2002-11724	A	20020923
	US 2002-422482P	P	20021031
	US 2003-665872	A2	20030918
	CN 2003-822562	A3	20030922
	WO 2003-FR2782	W	20030922

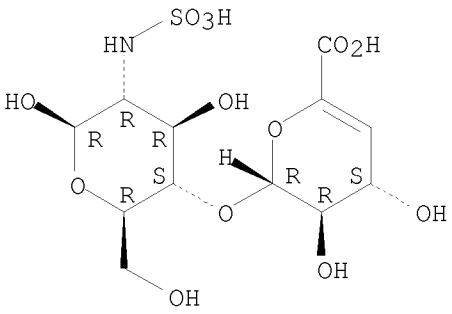
AB A method for heparinase-catalyzed depolymn. of low mol. weight of heparins and HPLC structure determination of the corresponding oligosaccharides and reduced oligosaccharides are reported.

IT *674789-50-5P* *674789-51-6P*
RL: BPN (Biosynthetic preparation); PRP (Properties); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(preparation, hydride-reduction, and HPLC of oligosaccharides obtained by heparinase-catalyzed depolymn. of low mol. weight of heparins)

RN 674789-50-5 CAPLUS

CN β-D-Glucopyranose, 2-deoxy-4-O-(4-deoxy-α-L-threo-hex-4-enopyranuronosyl)-2-(sulfoamino)-, disodium salt (9CI) (CA INDEX NAME)

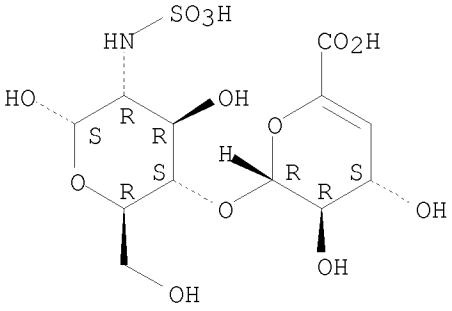
Absolute stereochemistry.



●2 Na

RN 674789-51-6 CAPLUS
CN α-D-Glucopyranose, 2-deoxy-4-O-(4-deoxy-α-L-threo-hex-4-enopyranuronosyl)-2-(sulfoamino)-, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 Na

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:558151 CAPLUS <<LOGINID::20080310>>
DOCUMENT NUMBER: 131:334237
TITLE: Disaccharide Analysis and Molecular Mass Determination to Microgram Level of Single Sulfated Glycosaminoglycan Species in Mixtures Following Agarose-Gel Electrophoresis
AUTHOR(S): Volpi, Nicola
CORPORATE SOURCE: Department of "Biologia Animale,", Biological Chemistry Section, University of Modena, Modena, Italy
SOURCE: Analytical Biochemistry (*1999*), 273(2), 229-239
CODEN: ANBCA2; ISSN: 0003-2697
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal

LANGUAGE: English

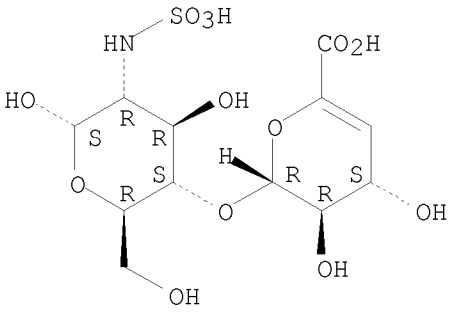
AB The separation of sulfated glycosaminoglycans in mixts. by agarose-gel electrophoresis and the recovery of single polysaccharide bands has been applied to the characterization of polysaccharides extracted from tissues without previous purification of single species. Sulfated glycosaminoglycans, heparin with its two components, slow-moving and fast-moving, heparan sulfate, dermatan sulfate, and chondroitin sulfate, were separated to microgram level by conventional agarose-gel electrophoresis. After their separation, they were fixed in the agarose-gel matrix by precipitation in a cetyltrimethylammonium bromide solution, making them visible on a dark background. After recovery of gel containing the fixed bands, high temps. (90° for 15 min) were necessary to dissolve the gel matrix, and a solution of NaCl (3 M) was used to release sulfated polysaccharides from the complex with cetyltrimethylammonium. After precipitation of glycosaminoglycans in the presence of ethanol, the recovery of slow-moving heparin, fast-moving heparin, heparan sulfate, dermatan sulfate, and chondroitin sulfate was from 1 to 10 μg, with a percentage greater than 45% and a purity above 90%. Sulfated glycosaminoglycans in mixts. recovered from gel matrix as single species were evaluated for purity and characterized for unsatd. disaccharides after treatment with bacterial lyases (heparinases for heparin and heparan sulfate samples, and chondroitinases for dermatan sulfate and chondroitin sulfate) and mol. mass. Bovine lung and heart glycosaminoglycans were extracted and separated into single species by agarose-gel electrophoresis and recovered from gel matrix after treatment in cetyltrimethylammonium solution Unsatd. disaccharides pattern, the sulfate to carboxyl ratio, and the mol. mass of each single polysaccharide species were determined (c) 1999 Academic Press.

IT *145882-46-8*
RL: ANT (Analyte); BOC (Biological occurrence); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)
(disaccharide anal. and mol. mass determination to microgram level of single sulfated glycosaminoglycan species in mixts. following agarose-gel electrophoresis)

RN 145882-46-8 CAPLUS

CN α-D-Glucopyranose, 2-deoxy-4-O-(4-deoxy-α-L-threo-hex-4-enopyranuronosyl)-2-(sulfoamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



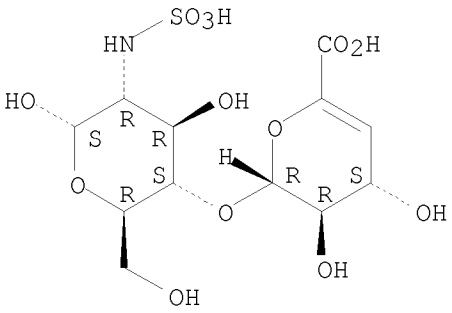
REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1994:293407 CAPLUS <<LOGINID::20080310>>
DOCUMENT NUMBER: 120:293407
TITLE: Fractionation of heparin, dermatan sulfate, and chondroitin sulfate by sequential precipitation: a method to purify a single glycosaminoglycan species from a mixture
AUTHOR(S): Volpi, Nicola
CORPORATE SOURCE: Dep. "Biol. Anim.", Univ. Modena, Modena, 41100, Italy
SOURCE: Analytical Biochemistry (*1994*), 218(2), 382-91
CODEN: ANBCA2; ISSN: 0003-2697
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Purified heparin, dermatan sulfate, and chondroitin sulfate in mixts. were fractionated by sequential precipitation with increasing vols. of acetone and analyzed by agarose-gel electrophoresis and for Mr, charge d., constituent disaccharides, and anticoagulant activity (for heparin). Purified glycosaminoglycans are generally utilized for pharmaceutical purposes and show physicochem. properties of glycosaminoglycans used as drugs. Heparin is the first glycosaminoglycan to precipitate at low percentages of acetone. The relative amount of slow moving and fast moving components, the Mr and charge d., and the disaccharide pattern of fractionated heparin depend on the percentage of solvent. The activated partial thromboplastin time activity of fractions composed of heparin decreases with the charge d. and Mr. Dermatan sulfate is precipitated by acetone over a narrow range (0.6-0.7 volume, 37-41%), and one of these fractions is constituted by 100% of this polysaccharide. These species of dermatan sulfate have different percentages of constituent disaccharides compared to the native polysaccharide. Nonsulfated disaccharide and disaccharide-6-sulfate are enriched. The dermatan sulfate species precipitated by acetone are also enriched in disaccharide-4,6-disulfate. Chondroitin sulfate is the most soluble glycosaminoglycan in mixed acetone/water solvent. It begins to precipitate at 0.8 vol (44%) of acetone. Different species of chondroitin sulfate can be recovered by precipitation at different percentages of solvent, and they show a decrease in Mr and charge d. depending on the percentage of acetone. The chondroitin sulfate species fractionated are also enriched in disulfated disaccharides compared to native polysaccharide. A different distribution of the three disulfated disaccharides can be pointed out in the fractionated chondroitin sulfate. Sequential precipitation performed by carefully increasing acetone percentages can help obtain purified species of glycosaminoglycan with desired properties from a mixture and tissue exts., and achieve savings in time.

IT *145882-46-8*
RL: ANST (Analytical study)
(of heparin, after acetone precipitation)
RN 145882-46-8 CAPLUS
CN α-D-Glucopyranose, 2-deoxy-4-O-(4-deoxy-α-L-threo-hex-4-enopyranuronosyl)-2-(sulfoamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



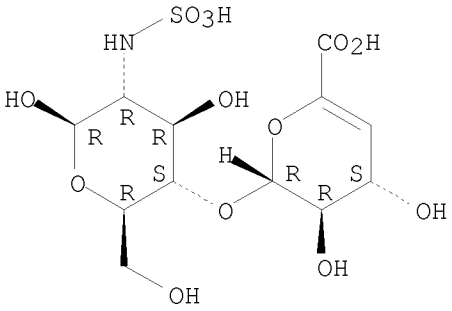
L6 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1994:49369 CAPLUS <<LOGINID::20080310>>
DOCUMENT NUMBER: 120:49369
TITLE: "Fast moving" and "slow moving" heparins, dermatan sulfate, and chondroitin sulfate: qualitative and quantitative analysis by agarose-gel electrophoresis
AUTHOR(S): Volpi, Nicola
CORPORATE SOURCE: Dep. "Biol. Anim.", Univ. Modena, Modena, Italy
SOURCE: Carbohydrate Research (*1993*), 247, 263-78
CODEN: CRBRAT; ISSN: 0008-6215
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Heparin from beef intestinal mucosa, dermatan sulfate from beef intestinal mucosa, and chondroitin sulfate from bovine trachea were extracted and purified, and their structures and physico-chemical properties were evaluated by different techniques (disaccharide patterns by specific enzymic cleavage, relative mol. mass by high-performance size-exclusion chromatog., sulfate-to-carboxyl ratio by potentiometric determination). Heparin was fractionated into "slow moving" and "fast moving" fractions by selective precipitation as the barium salt at different temps. The "fast moving" and "slow moving" components of heparin, dermatan sulfate, and chondroitin sulfate were utilized to run calibration curves in agarose-gel electrophoresis. Mixts. containing different amts. of these glycosaminoglycans were made and separated by agarose-gel electrophoresis, and these were analyzed quant. For anal. of relative amts., the area of each individual component of mixts., obtained by photodensitometric readings, was divided by the sum of the areas of all glycosaminoglycans and expressed as a percentage. For anal. of absolute amts., the area under the curve for each component of mixts. was fitted to specific calibration curves, and the amount of each glycosaminoglycan was calculated in μg. The quant. procedure performed by analyzing absolute amts. was used to obtain an accurate quant. evaluation of each component in mixts. of glycosaminoglycans utilized for pharmaceutical purposes. A sensitive method was developed for the evaluation of very small amts. (0.2% weight/weight) of possible glycosaminoglycans as contaminants in prepns. of a single species of glycosaminoglycan. This technique requires specific enzymic degradation by bacterial lyases, separation in agarose-gel electrophoresis, and quant. anal. by photodensitometric anal. and specific calibration curves.

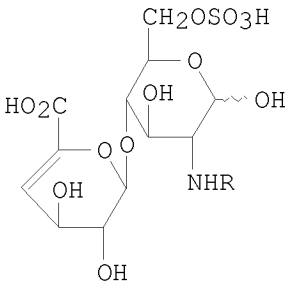
IT *151505-06-5*
RL: ANST (Analytical study)
(release and anal. of, of heparins)

RN 151505-06-5 CAPLUS
CN β-D-Glucopyranose, 2-deoxy-4-O-(4-deoxy-α-L-threo-hex-4-enopyranuronosyl)-2-(sulfoamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1994:8885 CAPLUS <<LOGINID::20080310>>
DOCUMENT NUMBER: 120:8885
TITLE: Conformation of the unsaturated uronic acid residues of glycosaminoglycan disaccharides
AUTHOR(S): Ragazzi, M.; Ferro, D. R.; Provasoli, A.; Pumilia, P.; Cassinari, A.; Torri, G.; Guerrini, M.; Casu, B.; Nader, H. B.; Dietrich, C. P.
CORPORATE SOURCE: Ist. Chim. Macromol., CNR, Milan, I-20133, Italy
SOURCE: Journal of Carbohydrate Chemistry (*1993*), 12(4-5), 523-35
CODEN: JCACDM; ISSN: 0732-8303
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

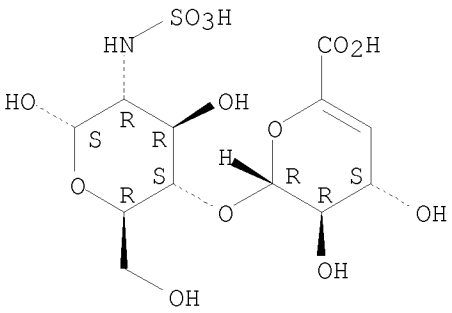


I

AB Mol. mechanics calcns. (using the REFINE package) have been performed on a series of disaccharides, e.g. I (R = Ac, SO3H), obtained by cleavage of glycosaminoglycans with lyases, in order to examine the effect of chemical environment on the conformation of the 4,5-unsatd. uronic acid residue. The disaccharides were derived from heparin and heparan sulfate , hyaluronic acid, chondroitin, chondroitin-4-sulfate, and chondroitin-6-sulfate.
IT *145882-46-8* *151505-06-5*

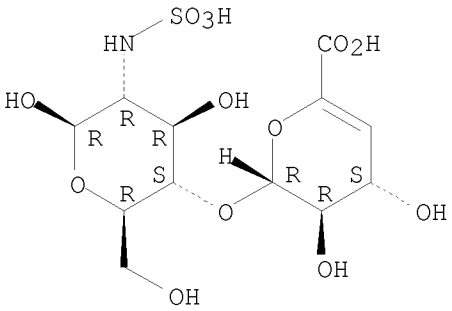
RL: PRP (Properties)
(conformation and mol. mechanics of, NMR in relation to)
RN 145882-46-8 CAPLUS
CN α-D-Glucopyranose, 2-deoxy-4-O-(4-deoxy-α-L-threo-hex-4-enopyranuronosyl)-2-(sulfoamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 151505-06-5 CAPLUS
CN β-D-Glucopyranose, 2-deoxy-4-O-(4-deoxy-α-L-threo-hex-4-enopyranuronosyl)-2-(sulfoamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1993:96610 CAPLUS <<LOGINID::20080310>>
DOCUMENT NUMBER: 118:96610
TITLE: One- and two-dimensional proton NMR characterization of two series of sulfated disaccharides prepared from chondroitin sulfate and heparan sulfate/heparin by bacterial eliminase digestion
AUTHOR(S): Yamada, Shuhei; Yoshida, Keiichi; Sugiura, Makiko; Sugahara, Kazuyuki
CORPORATE SOURCE: Dep. Physiol. Chem., Kobe Women's Coll. Pharm., Kobe, 658, Japan
SOURCE: Journal of Biochemistry (Tokyo, Japan) (*1992*), 112(4), 440-7
CODEN: JOBIAO; ISSN: 0021-924X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The 1H-NMR spectra of eight unsatd. disaccharides obtained by bacterial

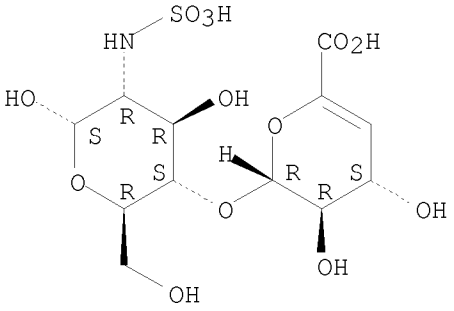
eliminase digestion of chondroitin sulfate and of heparan sulfate/heparin were recorded in order to construct an NMR data base of sulfated oligosaccharides and to investigate the effects of sulfation on the proton chemical shifts. These shifts were assigned by two-dimensional HOHAHA (homonuclear Hartmann-Hahn) and COSY (correlation spectroscopy) methods. The results indicated the following. Two sets of proton signals were observed, corresponding to the α and β anomers of these disaccharides, except those containing N-sulfated GlcN (2-deoxy-2-amino-D-glucose), in which only one set of signals appeared, corresponding to the α anomer. Signals of protons bound to an O-sulfated carbon atom and those bound to the immediately neighboring carbon atoms were shifted downfield by 0.4-0.7 and 0.07-0.3 ppm, resp. For the disaccharides containing the N-sulfated GlcN, the signals of the protons bound to C-2 and C-3 were shifted upfield by 0.6 and 0.15 ppm, resp., but that of C-1 was shifted downfield by 0.25 ppm when compared with those of the corresponding N-acetylated disaccharides. For the chondroitin sulfate disaccharides sulfated on the C-4 position of GalNAc (2-deoxy-2-N-acetylamino-D-galactose) or the C-2 position of ΔGlcA (D-gluco-4-ene-pyranosyluronic acid), the signal of the H-3 proton of ΔGlcA or the H-4 proton of GalNAc was shifted upfield by 0.1-0.15 ppm, indicating the steric interaction of the two sugar components. These effects of sulfation on chemical shifts are additive.

IT *145882-46-8*
RL: BIOL (Biological study)
(of heparan sulfate and heparin, structure of, NMR study of)

RN 145882-46-8 CAPLUS

CN α-D-Glucopyranose, 2-deoxy-4-O-(4-deoxy-α-L-threo-hex-4-enopyranuronosyl)-2-(sulfoamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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FILE 'REGISTRY' ENTERED AT 16:35:24 ON 10 MAR 2008
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L3 0 S L1 SSS SAM
L4 4 S L3 SSS FULL

FILE 'CAPLUS' ENTERED AT 16:37:06 ON 10 MAR 2008
L5 8 S L4

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L6             8 S L5 AND PY<=2005
L7             0 S L6 AND (HGF OR HEPATOCYTE)

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L1 HAS NO ANSWERS
L1               STR
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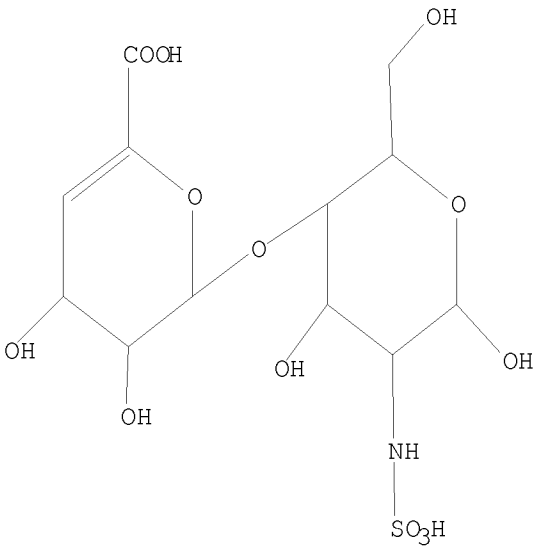

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FULL ESTIMATED COST                                      52.36     231.85

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
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CA SUBSCRIBER PRICE                                      -6.40      -6.40

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